

WHAT IS CLAIMED IS:

- 1           1.           An autoloading pistol with magazine disconnect mechanism comprising:  
2           a frame that holds a magazine;  
3           a housing carried by the frame and defining a chamber to hold a cartridge;  
4           a firing pin disposed in the housing and movable toward the chamber;  
5           a blocking member movable into and out of engagement with the firing pin; and  
6           an actuator that disengages the blocking member from the firing pin when the  
7 magazine is inserted in the pistol and engages the blocking member with the firing pin  
8 when the magazine is removed from the pistol so that the firing pin is prevented from  
9 moving toward and contacting a cartridge in the chamber.
- 1           2.           The pistol of claim 1, wherein the magazine releaseably contacts and  
2 moves the actuator in a first direction to disengage the blocking member from the firing pin.
- 1           3.           The pistol of claim 2, wherein the magazine breaks contact with and  
2 moves the actuator in a second direction to engage the blocking member with the firing pin.
- 1           4.           The pistol of claim 1, wherein the blocking member is vertically  
2 movable from a first position in which the blocking member does not engage the firing pin to a  
3 second position in which the blocking member engages the firing pin.
- 1           5.           The pistol of claim 4, further comprising a biasing member to bias the  
2 blocking member into the second position.
- 1           6.           The pistol of claim 1, wherein the blocking member actuator is pivotally  
2 mounted to the frame.
- 3           7.           The pistol of claim 6, wherein the blocking member actuator is an  
4 ejector that expels spent cartridges from the pistol.
- 1           8.           The pistol of claim 1, wherein the blocking member actuator is a lever  
2 having one end pivotally mounted to the frame and an opposite free end to operably contact the  
3 blocking member.

1           9.           The pistol of claim 1, wherein the housing is a reciprocating slide  
2 movable in a forward and rearward direction, and the blocking member is disposed in the  
3 movable slide.

1           10.           The pistol of claim 1, wherein the blocking member further comprises a  
2 shaft with a laterally-protruding flange, the flange movable into and out of engagement with  
3 the firing pin.

1           11.           The pistol of claim 10, wherein the flange engages a protrusion  
2 extending vertically upwardly from the firing pin to block the firing pin from moving toward  
3 the chamber.

1           12.           An autoloading pistol with magazine disconnect mechanism comprising:  
2 a frame defining an open cavity;  
3 a reciprocating slide carried by the frame and defining a chamber to hold a  
4 cartridge;  
5 a firing pin movable toward the chamber;  
6 a blocking member engageable with the firing pin and movable between a first  
7 position in which the blocking member does not engage and block forward movement  
8 of the firing pin, and a second position in which the blocking member engages and  
9 blocks forward movement of the firing pin; and  
10 an actuator that holds the blocking member in the first position when supported  
11 by a magazine inserted in the frame,  
12 wherein removing the magazine from the pistol displaces the actuator in a first  
13 direction to concomitantly move the blocking member to the second position in which  
14 forward movement of the firing pin toward the chamber is blocked.

1           13.           The pistol of claim 12, wherein reinserting the magazine into the pistol  
2 displaces the actuator in a second direction which concomitantly returns the blocking member  
3 to the first position.

1           14.           The pistol of claim 12, further comprising a biasing member that biases  
2 the blocking member into the second position.

1           15.           The pistol of claim 12, wherein the actuator is pivotally movably  
2 mounted to the frame.

1           16.           The pistol of claim 12, wherein the actuator further comprises a body  
2 and angularly protruding lever arm configured to contact the blocking member.

1           17.           The pistol of claim 16, wherein the blocking member actuator is an  
2 ejector that ejects spent cartridges from the pistol.

1           18.           The pistol of claim 12, wherein the blocking member actuator maintains  
2 contact with the blocking member when the blocking member is in the first and second  
3 positions.

1           19.           The pistol of claim 12, wherein the blocking member is movable in a  
2 vertical direction between the first and second positions.

1           20.           A method of blocking the discharge of a pistol having a housing defining  
2 a longitudinal axis, a chamber to hold a cartridge, a firing pin, and a removable magazine held  
3 in a frame, the method comprising:  
4           removing the magazine from the pistol;  
5           engaging the longitudinally movable firing pin; and  
6           blocking the firing pin from moving into contact with a cartridge loaded in the  
7 chamber of the pistol to discharge the pistol.

1           21.           The method of claim 20, further comprising;  
2           reinserting the magazine into the pistol;  
3           disengaging the firing pin, and  
4           unblocking movement of the firing pin to contact the cartridge and discharge the  
5 pistol.

1           22.           An autoloading pistol with magazine disconnect mechanism comprising:  
2           a frame defining an open cavity;  
3           a reciprocating slide defining a chamber to hold a cartridge;  
4           a firing pin disposed in the slide and movable in a forward direction towards the  
5 chamber;

6 a blocking member engageable with the firing pin and movable between a first  
7 disengaged position in which the blocking member allows the firing pin to move toward  
8 the chamber, and a second engaged position in which the blocking member does not  
9 allow the firing pin to move toward the chamber;

10 a biasing member urging the blocking member into the second position; and  
11 an actuator that contacts the blocking member and is movable in response to  
12 inserting and removing a magazine from the frame,

13 wherein inserting the magazine displaces the actuator in a first direction to  
14 simultaneously move the blocking member into the first position, and

15 wherein removing the magazine allows the biasing member to urge the blocking  
16 member into the second position and simultaneously displace the actuator in a second  
17 direction opposite the first direction.

18 23. The pistol of claim 22, wherein the actuator is pivotally mounted and  
19 movable in the frame, and includes a lever arm to operably engage the blocking member.

1 24. The pistol of claim 22, wherein the blocking member is vertically  
2 movable between the first and second positions.

1 25. The pistol of claim 24, wherein the actuator is vertically movable  
2 between an up position with the magazine inserted in the pistol and a down position with the  
3 magazine removed from the pistol.

1 26. The pistol of claim 22, wherein the actuator is an ejector that expels  
2 spent cartridges from the pistol after discharge.